

Rpt. 13.

No. 5434

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 28-5-19 58 When handed in at Local Office 19 Port of D J A K A R T A

No. in Survey held at D J A K A R T A Date, First Survey Last Survey 28-5-19 58  
Reg. Book. (No. of Visits 8)Tons { Gross... 220  
Net...

on the m.v. "TIRTONADI",

Built at Djakarta By whom built Messrs. Verenigde Yard No. 148 When built 5-58  
Prawen Veren

Owners. Pelajaran Djawa Kalimantan Port belonging to Djakarta

Installation fitted by Builders When fitted 5-58

Is vessel equipped for carrying Petroleum in bulk. No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. No Radar No

Plans, have they been submitted and approved. Yes System of Distribution Two phase Voltage of Lighting 110V

Heating Power 110V D.C. or A.C. Lighting D.C. Power D.C. If A.C. state frequency

Prime Movers, has the governing been found as per Rule when full load is thrown on and off. Yes Are turbine emergency governors fitted with a trip switch. Generators, are they compound wound. Yes, and level compounded under working conditions. Yes

Are the generators arranged to run in parallel. No Is the compound winding connected to the negative or positive pole. Negative

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing. Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule. Yes Position of Generators One SBD E.R. Aux. Engine

driven. One SBD Aft E.E. M.E. Shaft driven.

is the ventilation in way of generators satisfactory. Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil. Yes Switchboards, where are main switchboards placed. One on Stbdside E.R.

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil. Yes, what insulation is used for the panels. Press Pan, if of synthetic insulating

material is it an Approved Type. Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule. Is the construction as per Rule, including locking of screws and nuts. Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches. Cast Iron Water and Gas proof Switch Boxes.

Knife Type selector switches (Alt. Generator I or II)

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. Cast iron water and gastight.

Rotary switches

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes Instruments on main switchboard. One ammeters. One voltmeters. synchronising devices. For compound machines in parallel are the ammeters and reverse current

protection devices connected on the pole opposite to the equaliser connection. Earth Testing, state means provided. Two

earth indicator lamps Preference Tripping, state if provided, and tested

Switches, Circuit Breakers and Fuses, are they as per Rule. Yes, are the fuses an Approved Type. Yes

make of fuses. Yes, are all fuses labelled. Yes If circuit breakers are provided for the generators, at what overload do they operate, and at what current do the reverse current protective

devices operate Cables, are they insulated and protected as per Rule. Yes

if otherwise than as per Rule are they of an Approved Type, state maximum fall of pressure between bus bars and any point under maximum load. 1.5 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends.

Are all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage. No, if so, are they adequately protected. State

type of cables (if in conduit this should also be stated) in machinery spaces. Rubber insulated, Lead covered with braided steel sheathing, galleys. Ditto in channels where required, and laundries. State how the cables are supported or protected. alternatively fastened by galvanised steel clips.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. glands, where unarmoured cables pass through beams, etc., are the holes

effectively bushed. Yes Refrigerated chambers, are the cables and fittings as per Rule.

Have refrigeration fan motors been constructed under survey and test certificates supplied.

Are the motors accessible for maintenance at all times.



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... **yes**..... Emergency Supply, state position **Not fitted (Kerosine lamps supplied)**

Navigation Lamps, are they separately wired... **yes**..... controlled by separate double pole switches and fuses... **yes** Are the switches and fuses in a position accessible only to the officers on watch... **yes**..... is an automatic indicator fitted... **yes**..... Is an alternative supply provided... **No (oil lamps supplied)**

Secondary Batteries, are they constructed, fitted and adequately ventilated as per Rule... **Not fitted**....., state battery capacity in ampere hours..... Where required to do so does it comply with 1948 International Convention.....

Lighting, is fluorescent lighting fitted... **No**..... If so, state nominal lamp voltage..... and compartments where lamps are fitted.....

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... **yes**.....

Searchlights, No. of... **One**....., whether fixed or portable... **fixed**....., are they of the carbon arc or of the filament type... **Filament**.....

Heating and Cooking, is the general construction as per Rule....., are the frames effectually earthed....., are heaters in the accommodation of the convection type..... Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil... **yes (only motors fitted are for now-essentiac purposes)**

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment..... Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing.....

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule.....

Lightning Conductors, where required are they fitted as per Rule... **yes**.....

Ships carrying Oil having a Flash Point of less than 150° F. Have all the special requirements of the Rules for such ships been complied with....., are all fuses of an Approved Cartridge Type....., make of fuse..... Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships..... Are all cables lead covered as per Rule.....

E.S.D., if fitted state maker..... location of transmitter and receiver.....

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations... **For short voyages only**

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory... **yes**.....

#### PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				PRIME MOVER.	
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN ...	1	Hansa	5	110	45,5	1000	oil Eng	Samopa 1 cyl
	1	Hansa	3	110	27,2	1000	M.E. shaft driven marked lloyd's	
EMERGENCY ...							tes	
ROTARY TRANSFORMER							HAM No 10617 W.F.C. 15-12-55	

#### GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	1	5	1	25 mm2	40	63	10m	Rubber Lead	Braided steel wire
" " EQUALISER ...	1	3	1	25 mm2	26	63	8m		
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER: MOTOR ...									
" " GENERATOR...									

#### MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.									
Engine Room	1	2,5mm2	3A	12		Rubber Lead	Braided steel wire		
Engine Room	1	2,5 mm2	1,5	12			wire Armouring		
Navisation	1	2,5 mm2	3A	12			wire Armouring		
Navisation	1	2,5 mm2	3A	12			wire Armouring		
Boat Deck	1	2,5 mm2	8,8A	12			wire Armouring		
Main Deck aft	1	2,5 mm2	6,3A	12			wire Armouring		
Fore ship	1	2,5 mm2	10,8A	12			wire Armouring		

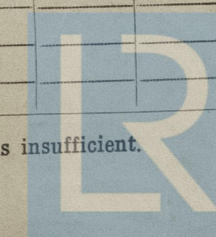
#### DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.).

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Rubber insulated lead covered, braided steel armoured cable of 2,5 mm2 section has been used throughout the vessel, except for Domestic lighting purposes within accommodation, where unarmoured rubber/lead cable of 2½ mm2 section has been employed							

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Not fitted for essential services.									

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient.



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The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.  
All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.  
The foregoing is a correct description.

Electrical Contractors. Date

#### COMPASSES.

Have the compasses been adjusted under working conditions Yes

Builder's Signature. Date

Have the foregoing descriptions and schedules been verified and found correct yes

Is this installation a duplicate of a previous case No If so, state name of vessel

Plans. Are approved plans forwarded herewith No If not, state date of approval 22-10-57 plan No 3211

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith 0,9 1-1 No

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

The Electrical Installation has been fitted in accordance with  
approved plans and Secretary's Letters

The workmanship was found good

Upon completion the installation has been megger tested and tried under  
full conditions of load and all was found satisfactory.

It is submitted this electrical installation merits the approval of the  
Committee to be classed with the Society.

Total Capacity of Generators 8 Kilowatts.

The amount of Fee ... Rsps. = 1.000. When applied for,

19.

When received,

19.

Travelling Expenses (if any) Rsps. = 100.

*J. H. Smith for J. Harris*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

*See Sba 6232*



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